

CLAIMS:

1. A phosphate derivative of a phenolic hydroxy compound comprising the reaction product of the following steps:
 - (a) reacting the phenolic hydroxy compound with an alkyl $\alpha:\omega$ dialdehyde or a sugar-like polyhydroxy dialdehyde to form a hemiacetal;
 - (b) reducing the terminal aldehyde group on the product from step (a) to a hydroxyl group; and
 - (c) phosphorylating the hydroxyl group formed in step (b) to produce a phosphate derivative of the phenolic hydroxy compound.
- 10 2. The phosphate derivative of a phenolic hydroxy compound according to claim 1 having the structure of Compound (I) wherein R^1 , R^2 , R^3 , R^4 and R^5 may each independently be chosen from H or an alkyl group and n and m are independently in the range of 0 to 8.
- 15 3. The phosphate derivative of a phenolic hydroxy compound according to claim 1 having the structure of Compound (II) wherein R^1 , R^2 , R^3 , R^4 and R^5 may each independently be chosen from H or an alkyl group and R^6 , R^7 and R^8 can each independently be H or OH
- 20 4. The phosphate derivative of a phenolic hydroxy compound according to claim 1 wherein the product of step (c) has been reacted with a complexing agent selected from the group comprising amphoteric surfactants, cationic surfactants, amino acids having nitrogen functional groups and proteins rich in these amino acids.
5. The phosphate derivative of a phenolic hydroxy compound according to claim 1 wherein the phenolic hydroxy compound is propofol or a derivative of propofol.
- 25 6. The phosphate derivative of a phenolic hydroxy compound according to claim 5 wherein the phosphate derivative of propofol has been reacted with a complexing agent selected from the group comprising amphoteric surfactants, cationic surfactants, amino acids having nitrogen functional groups and proteins rich in these amino acids.
7. The phosphate derivative of a phenolic hydroxy compound according to claim 6 wherein the complexing agent is arginine.

8. The phosphate derivative of a phenolic hydroxy compound according to claim 6 wherein the complexing agent is disodium lauryl-imino-dipropionate.
9. The phosphate derivative of a phenolic hydroxy compound according to claim 1 wherein the alkyl $\alpha:\omega$ dialdehyde or a sugar-like polyhydroxy dialdehyde is selected from the group consisting of gluteraldehyde, trihydroxy pentandial, glyoxal and mixtures thereof.
10. The phosphate derivative of a phenolic hydroxy compound of claim 1 wherein the phenolic hydroxy compound is selected from adrenaline, analgesics and mixtures thereof.
- 10 11. A method for preparing a phosphate derivative of a phenolic hydroxy compound comprising the steps of:
 - (a) reacting the phenolic hydroxy compound with an alkyl $\alpha:\omega$ dialdehyde or a sugar-like polyhydroxy dialdehyde to form a hemiacetal;
 - (b) reducing the terminal aldehyde group on the product from step (a) to a hydroxyl group; and
 - (c) phosphorylating the hydroxyl group formed in step (b) to produce a phosphate derivative of the phenolic hydroxy compound.
12. The method according to claim 11 further comprising step (d) reacting the product of step (c) with a complexing agent selected from the group comprising amphoteric surfactants, cationic surfactants, amino acids having nitrogen functional groups and proteins rich in these amino acids.
- 20 13. The method according to claim 11 wherein the phenolic hydroxy compound is propofol or a derivative of propofol.
14. The method according to claim 13 comprising the further step of reacting the phosphate derivative of propofol with a complexing agent selected from the group comprising amphoteric surfactants, cationic surfactants, amino acids having nitrogen functional groups and proteins rich in these amino acids.
- 25 15. The method according to claim 14 wherein the complexing agent is arginine.
16. The method according to claim 14 wherein the complexing agent is disodium lauryl-imino-dipropionate.

17. The method according to claim 11 wherein the alkyl $\alpha:\omega$ dialdehyde or a sugar-like polyhydroxy dialdehyde is selected from the group consisting of gluteraldehyde, trihydroxy pentandial, glyoxyal and mixtures thereof.
18. A phosphate derivative of propofol or a derivative of propofol comprising the reaction product of the following steps:
 - (a) reacting propofol or a derivative of propofol with an alkyl $\alpha:\omega$ dialdehyde or a sugar-like polyhydroxy dialdehyde to form a hemiacetal;
 - (b) reducing the terminal aldehyde group on the product from step (a) to a hydroxyl group; and
 - (c) phosphorylating the hydroxyl group formed in step (b) to produce a phosphate derivative of propofol or a derivative of propofol.
19. The phosphate derivative of propofol or a derivative of propofol according to claim 18 wherein the phosphate derivative from step (c) has been reacted with a complexing agent selected from the group comprising amphoteric surfactants, cationic surfactants, amino acids having nitrogen functional groups and proteins rich in these amino acids.
20. The phosphate derivative of propofol or a derivative of propofol according to claim 19 wherein the complexing agent is arginine.
21. The phosphate derivative of propofol or a derivative of propofol according to claim 19 wherein the complexing agent is disodium lauryl-imino-dipropionate.
22. The phosphate derivative of propofol or a derivative of propofol according to claim 18 wherein the alkyl $\alpha:\omega$ dialdehyde or a sugar-like polyhydroxy dialdehyde is selected from the group consisting of gluteraldehyde, trihydroxy pentandial, glyoxyal and mixtures thereof.
23. A phosphate derivative of a phenolic hydroxy compound according to any one of claims 1 to 8 when used as a prodrug.
24. A phosphate derivative of a phenolic hydroxy compound according to any one of claims 1 to 8 when used as an anaesthetic.

25. A method for improving the bioavailability of a phenolic hydroxy compound comprising the following steps:

- (a) reacting the phenolic hydroxy compound with an alkyl α : ω dialdehyde or a sugar-like polyhydroxy dialdehyde to form a hemiacetal;
- 5 (b) reducing the terminal aldehyde group on the product from step (a) to a hydroxyl group; and
- (c) phosphorylating the hydroxyl group formed in step (b) to produce a phosphate derivative of the phenolic hydroxy compound.